# Muhammad Irfan Syafi bin Zaharuddin

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### WORK EXPERIENCE AI Engineer | Userdata Sdn Bhd, Kuala Lumpur

October 2024 - February 2025

- Managed and optimized data assets using MySQL and MongoDB ensuring data integrity and efficiency.
- Maintained ERD to streamline database operations.
- Built and maintained endpoints using FastAPI and MySQL for AI-driven applications.
- Developed AI agents using LLMs, integrating MySQL for structured data and embedded data using embedding models into vector databases such as ChromaDB and Qdrant for vector search.

# Junior Metocean Engineer / Analyst | Petronas, Kuala Lumpur October 2023 - October 2024

- Built an in-house analysis desktop application, increasing team productivity by 30% including CI/CD pipeline using Github Actions.
- Built and maintained ETL processes to track seismic activities and visualization on PowerBI
- Develop Monte Carlo Simulations for Extreme Value Analysis and present analysis results to stakeholders.
- Perform calculations techniques for hindcast and measurement data including developing metocean criteria for Explorations.
- Proof of Concept on Time Series Weather Forecasting using Deep Learning techniques by leveraging PyTorch and Tensorflow.
- Involved in internal Citizen Data Analytics Hackathon leveraging Microsoft Azure Services.

# Information Systems Intern & IT Support | Panasonic, Selangor September 2022 - January 2023

- Utilized Visual Basic (VB) programming and SQL Script in Excel to automate payroll monthly reports from Microsoft SQL Server.
- Created clear and concise System Requirement Specification (SRS) and User Acceptance Testing (UAT) documents for the user.
- Provided technical support to employees, trouble and software issues and resolving issues quickly to minimize downtime.
- Experience in automating software removal using Powershell scripting and terminal prompt.

# **PROJECT AND SIDE PROJECTS**

- Sentiment Analysis in Employee Satisfaction in a Company
  - o Conducted ETL processes for secondary data obtained publicly by utilizing web scraping techniques and Python.
  - o Applied machine learning techniques such as Naive Bayes, Support Vector Machine and Random Forest to classify the polarity of the sentiments using RapidMiner tools and display findings in a dashboard using PowerBI.
- Image Scenery Recognition using Convolutional Neural Network (CNN).
  - o Developed CNN architecture using Tensorflow framework and achieved 77% accuracy in prediction of the scenery.
- Airplanes Flight: International Economic Recovery (AFIER)
  - o Conducted data preprocessing, cleaning and visualization using Power BI for the Malaysian Data Innovation Talent using public source dataset.
- Credit Scoring Fuzzy Logic System
  - o Developed a fuzzy system to determine the credibility of a small and medium businesses in handling their loan based on credit scores.
- Forest API
  - o Develop RESTful APIs using FastAPI and integrating AWS Athena for interactive and efficient querying data.

- Telegram Bot for Daily Blood Donation Info
  - ETL from https://github.com/MoH-Malaysia to get the daily data of blood donations in 0 Malaysia. Analyze the data and send the information through Telegram API into a personalized group.
  - Repositories are available here: https://github.com/irfansyafi/malaysia blood donation 0
- **Deploying Streamlit Application** 
  - o Containerized using Docker and self-hosted the application in Ubuntu virtual machine.

## **TECHNICAL SKILLS**

- Databases Microsoft SQL Server, MySQL, MongoDB
- Vector Databases Qdrant, ChromaDB •
- Programming Languages Visual Basic, SQL, Python •
- Python Packages & Frameworks Numpy, Pandas, FastAPI, Streamlit, PyTorch, Tensorflow •
- Cloud Services Azure, AWS (Athena)
- DevOps, CI/CD & Deployment Tools Docker, Github Actions, Linux
- Data Engineering Web Scraping, ETL processes
- Data Visualization Microsoft PowerBI

## AWARDS AND ACHIEVEMENTS

- Focused Recognition from PETRONAS Citizen Data Analytics Hackathon
- Vice Chancellor Award Dean's Award for every Semester
- Shortlisted as the Top 30 teams in Malaysian Data Innovation Talent 2021
- Received JPA MARA Scholarship

## **CERTIFICATES**

- Microsoft Certified: Azure AI Engineer Associate
- Microsoft Certified: Azure AI Fundamentals
- Microsoft Certified: Azure Fundamentals
- Microsoft Office Specialist: Excel Associate (Office 2019)

## **EDUCATION**

Universiti Teknologi MARA (UiTM)

Bachelor Of Information Systems (Hons.) Intelligent Systems Engineering (CGPA: 3.64)

Selangor

Selangor

September 2019 - March 2023

September 2018 - May 2019

# Foundation in Engineering (CGPA: 3.33)

Universiti Teknologi MARA (UiTM)

## REFERENCES

Sabilah Margirizki Lead Data Scientist WP Kuala Lumpur Tel: +62 878-7232-8982 Email: sabilah.m@userdata.tech

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